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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,044	06/15/2006	Osamu Funahashi	MAT-8859US	6960

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EXAMINER	
ROBINSON, RYAN C	
ART UNIT	PAPER NUMBER
2614	
MAIL DATE	DELIVERY MODE
11/03/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/583,044	FUNAHASHI ET AL.	
	Examiner	Art Unit	
	RYAN C. ROBINSON	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 August 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 June 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/15/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Funahashi et al., U.S. Publication No. 2003/0185415, published on 10/2/2003, (hereby Funahashi), in view of Matsuda et al., U.S. Patent No. 7,394,913, filed on 8/31/2004, (hereby Matsuda).

3. As to claim 1, Funahashi discloses a loudspeaker (Fig. 8) comprising a frame (19), a magnetic circuit (10, 11, 13) held by the frame (19), a voice coil body (15) disposed so as it can move freely in a magnetic gap (14) of the magnetic circuit, a diaphragm (26) whose outer circumferential end is connected to the frame (19) via a first edge (18), and a suspension holder (25) whose outer circumferential end is connected to the frame (19) via a second edge (21); wherein: a diameter of an inner circumference of the suspension holder (25) is greater than an outer diameter of the voice coil body (15) while a diameter of an inner circumference of the diaphragm (26) is greater than the diameter of the inner circumference of the suspension holder (25), the

suspension holder (25) has an inner circumferential portion, and the inner circumferential portion is coupled via only an adhesive (Para. 0057, lines 5-8) to the voice coil body (15), and the diaphragm (26) is disposed on and in contact with the suspension holder (25) at an inner circumferential end of the suspension holder (25) such that the diaphragm (26) is supported by the suspension holder (25).

It is noted, that Funahashi does not explicitly disclose a supporting section attached to the voice coil body, and that the inner circumferential portion is disposed on a top surface of the supporting section. However, the use of a supporting section was well known in the art. Matsuda teaches a supporting section (Fig. 2, element 11) attached to the voice coil body (3), and the inner circumferential portion of the suspension holder (2) is disposed on a top surface of the supporting section. Therefore, it would have been obvious to one of ordinary skill in the art to provide a supporting section attached to the voice coil body in the loudspeaker taught by Funahashi, in order to provide further protection to the voice coil (Matsuda: Col. 5, lines 29-32).

4. As to claim 2, Funahashi discloses a loudspeaker comprising: As to claim 1, Funahashi discloses a loudspeaker (Fig. 8) comprising a frame (19), a magnetic circuit (10, 11, 13) held by the frame (19), a voice coil body (15) disposed so as it can move freely in a magnetic gap (14) of the magnetic circuit, a diaphragm (26) whose outer circumferential end is connected to the frame (19) via a first edge (18), and a suspension holder (25) whose outer circumferential end is connected to the frame (19) via a second edge (21); wherein: a diameter of an inner circumference of the

suspension holder (25) is greater than an outer diameter of the voice coil body (15) while a diameter of an inner circumference of the diaphragm (26) is greater than the diameter of the inner circumference of the suspension holder (25), the suspension holder (25) has an inner circumferential portion, and the inner circumferential portion is coupled via an adhesive (Para. 0057, lines 5-8) to the voice coil body (15), and the diaphragm (26) is disposed on and in contact with the suspension holder (25) at an inner circumferential end of the suspension holder (25) such that the diaphragm (26) is supported by the suspension holder (25).

It is noted, that Funahashi does not explicitly disclose a cylindrical supporting section attached to the voice coil body, and that the inner circumferential portion is disposed on a top surface of the supporting section. However, the use of a cylindrical supporting section was well known in the art. Matsuda teaches a cylindrical supporting section (Figs. 2, 3, element 11) attached to the voice coil body (3), and the inner circumferential portion of the suspension holder (2) is disposed on a top surface of the supporting section. Therefore, it would have been obvious to one of ordinary skill in the art to provide a supporting section attached to the voice coil body in the loudspeaker taught by Funahashi, in order to provide further protection to the voice coil (Matsuda: Col. 5, lines 29-32).

5. As to claim 3, Funahashi discloses a loudspeaker (Fig. 8) comprising a frame (19), a magnetic circuit (10, 11, 13) held by the frame (19), a voice coil body (15) disposed so as it can move freely in a magnetic gap (14) of the magnetic circuit, a

diaphragm (26) whose outer circumferential end is connected to the frame (19) via a first edge (18), and a suspension holder (25) whose outer circumferential end is connected to the frame (19) via a second edge (21); wherein: a diameter of an inner circumference of the suspension holder (25) is greater than an outer diameter of the voice coil body (15) while a diameter of an inner circumference of the diaphragm (26) is greater than the diameter of the inner circumference of the suspension holder (25), the suspension holder (25) has an inner circumferential portion, and the inner circumferential portion is coupled via an adhesive (Para. 0057, lines 5-8) to the voice coil body (15), the inner circumferential portion extending upwardly, and the diaphragm (26) is disposed on and in contact with the suspension holder (25) at an inner circumferential end of the suspension holder (25) such that the diaphragm (26) is supported by the suspension holder (25).

It is noted, that Funahashi does not explicitly disclose a supporting section attached to the voice coil body, and that the inner circumferential portion is disposed on a top surface of the supporting section. However, the use of a supporting section was well known in the art. Matsuda teaches a supporting section (Fig. 2, element 11) attached to the voice coil body (3), and the inner circumferential portion of the suspension holder (2) is disposed on a top surface of the supporting section. Therefore, it would have been obvious to one of ordinary skill in the art to provide a supporting section attached to the voice coil body in the loudspeaker taught by Funahashi, in order to provide further protection to the voice coil (Matsuda: Col. 5, lines 29-32).

Conclusion

The prior art made of record

a. US Publication Number **2003/0185415**

b. US Patent Number **7,394,913**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan C. Robinson whose telephone number is (571) 270-3956. The examiner can normally be reached on Monday through Friday from 9 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz, can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/R. C. R./
Examiner, Art Unit 2614
/CURTIS KUNTZ/
Supervisory Patent Examiner, Art Unit 2614